

Title (en)

Process for the microbiological preparation of 1,3-propane-diol from glycerol.

Title (de)

Verfahren zur mikrobiologischen Herstellung von 1,3-Propandiol aus Glycerin.

Title (fr)

Procédé de préparation microbiologique de 1,3-propanediol à partir de glycérol.

Publication

EP 0373230 A1 19900620 (EN)

Application

EP 88120718 A 19881212

Priority

EP 88120718 A 19881212

Abstract (en)

A process of the microbiological preparation of 1,3 propane diol from glycerol in growth media of suitable bacterial strains is described, accompanied by the addition of a cosubstrate in the form of a H-donor and the separation of the propane diol formed. It is characterized in that a) biomass is formed in a growth phase from the selected bacterial strain and accompanied by feeding with glycerol and, if necessary, whilst substantially excluding the H-donor until a stationary growth phase occurs and b) further glycerol and H-donor matched to the biomass are added to the resulting stationary cell suspension for increased 1,3-propane diol formation. This process makes it possible to produce 1,3-propane diol in a high yield from glycerol with a small amount of unobjectionable by-products in a batchwise manner or in continuous form, following immobilization.

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C12P 7/18

IPC 8 full level

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CPC (source: EP US)

C12P 7/18 (2013.01 - EP US)

Citation (search report)

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- [AD] CHEMICAL ABSTRACTS, vol. 107, no. 7, 17th August 1987, page 333, abstract no. 54605x, Columbus, Ohio, US; E.A. JOHNSON et al.: "Klebsiella pneumoniae 1,3-propanediol:NAD oxidoreductase", & J. BACTERIOL. 1987, 169(5), 2050-4

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